

**PRE-CONSTRUCTION NOTIFICATION
NATIONWIDE PERMIT 41
KRIENKE PROPERTY
LOOMIS, CALIFORNIA
FEBRUARY 7, 2007**



Prepared for
Kai Krienke
5397 Brace Road
Loomis, California 95650
(916) 652-0231

RECEIVED

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TOWN OF LOOMIS

Prepared by
TETRA TECH EM INC.
360 Gold Center Drive, Suite 200
Sancho Cordova, California 95670
(916) 852-8300



Tetra Tech Project Number P4030.01

100-1000000

100



TETRA TECH

Craig R. Hunter, PhD
Principal Scientist

6 February 2007

US Army Corps of Engineers
Regulatory Branch
1325 J Street, Room 1480
Sacramento, CA 95814-2922
916-557-5250 FAX: 916-557-6877

**Subject: Request for a Wetland Jurisdictional Determination and Pre-Construction Notification
5397 Brace Road, Loomis, California 95650
Placer County, California**

Dear Sir or Madam:

On behalf of Mr. Kai Krienke of Loomis, California, Tetra Tech EM Inc. (TtEMI) presents a pre-construction notification under Nationwide Permit 41 for a proposal to construct a driveway (access road). This driveway will provide access to two additional lots being created as part of a minor land division from a 1-acre parcel with an existing house. Mr. Krienke proposes to construct a driveway to access the additional lots. The construction of the driveway will affect two areas of a wetland that have formed in a storm water ditch along the western edge of property.

The details of the project are provided in the accompanying Nationwide Pre-Construction Notification form, including Mr. Krienke's address and telephone numbers, a brief description of the project, a statement that the project would not result in adverse environmental effects. In addition, the pre-construction notification form includes a statement that identifies the measures undertaken to avoid and minimize losses to potential waters of the United States and justification for a belief that no mitigation is required. In addition to the pre-construction notification form, the application package contains a map of the project location, a site map showing project details, and a wetland delineation report.

Mr. Krienke requests a jurisdictional determination of the wetlands associated with the storm water ditch. If it is determined that the wetlands are 'waters of the United States', Mr. Krienke would ask for an evaluation of his project under Nationwide Permit 41 – Reshaping Existing Drainage Ditches. Please note that an application for a Section 401 Water Quality Certification will be made once there is a determination that a Section 404 of the Clean Water Act is applicable.

This application package is being forwarded to the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game as requested by the application directions for the Pre-Construction Notification.



TETRA TECH

Should you have any questions or require supplemental information, please feel free to contact me at 916-853-4507.

Sincerely,

Craig R. Hunter, Ph.D.
Principal Scientist

Attachments: Preconstruction Notification Form
Site Map, Grading Plan, and aerial photograph
Krienke Property Wetland Delineation

cc: Mr. Kai Krienke (3)
U.S. Environmental Protection Agency, Region IX – Wetlands Section
U.S. Fish and Wildlife Service, Habitat Conservation Division, Wetlands Branch
California Department of Fish and Game, Region 2 – Environmental Services

U.S. Army Corps of Engineers South Pacific Division



Nationwide Permit Pre-Construction Notification (PCN) Form

This form integrates requirements of the Nationwide Permit Program within SPD, including General and Regional Conditions. Please consult instructions prior to completing this form.

Box 1 Project Name Brace Road		Applicant Name Kai Krienke	
Applicant Title Owner		Applicant Company, Agency, etc. not applicable	
Mailing Address 5397 Brace Road; Loomis, CA 95650		Applicant's internal tracking number (if any)	
Work Phone with area code	Home Phone with area code 916.652.0231	Fax # same	E-mail Address kaikrienke@sbcglobal.net
Relationship of applicant to property: <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Purchaser <input type="checkbox"/> Lessee <input type="checkbox"/> Other:			
Application is hereby made for verification that subject regulated activities associated with subject project qualify for authorization under a Corps nationwide permit or permits as described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agency to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work <u>only</u> after all necessary permits have been received.			
Signature of applicant 			Date (m/d/yyyy) 2/2/2007

Box 2 Authorized Agent/Operator Name and Signature <i>(If an agent is acting for the applicant during the permit process)</i> Craig Hunter			
Agent/Operator Title Principal Scientist		Agent/Operator Company, Agency, etc. Tetra Tech EM Inc.	
Mailing Address 10860 Gold Center Road; Rancho Cordova, CA 95670			
E-mail Address craig.hunter@ttemi.com			
Work Phone with area code 916.853.4507	Home Phone with area code	Fax # 916.852.0307	Cell Phone #
I hereby authorize the above named authorized agent to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application. I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.			
Signature of applicant 			Date (m/d/yyyy) 2/2/2007
I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.			
Signature of authorized agent 			Date (m/d/yyyy) 2/5/2007

Box 3 Name of property owner(s), if other than applicant: SAME AS APPLICANT	
Owner Title	Owner Company, Agency, etc.
Mailing Address	
Work Phone	Home Phone

Box 4 Name of contractor(s) (if known):	
Contractor Title	Contractor Company, Agency, etc.
Mailing Address	
Work Phone	Home Phone

Include multiple copies of Box 5 for separate sites.

Box 5 Site Number 1 of 1. Project location(s), including street address, city, county, state, zip code where proposed activity will occur: 5397 Brace Road; Loomis, CA 95650. The site is in Placer County	
Waterbody (if known, otherwise enter "an unnamed tributary to"): drainage ditch to an unnamed tributary of	
Tributary to what known, downstream waterbody: Secret Ravine Creek	
Latitude & longitude (D/M/S, DD, or UTM): 38.8106480 N, 121.2020796 W	Zoning Designation (no codes or abbreviations): Single-Family Residential-10,000 lot minimum
Assessors parcel number: 044-123-009	Section, Township, Range: SE1/4, SW1/4, Sec. 9, T. 11 N., R. 7 E.
USGS Quad map name: Rocklin	
Watershed and other location descriptions, if known: Secret Ravine	
Directions to the project location: Travelling east from Sacramento, CA toward Reno, NV on Interstate-80, take the Sierra College Boulevard Exit in Rocklin, CA. At Sierra College Blvd. turn left and travel north approximately 0.63 miles to Brace Road. Turn right and travel east approximately 0.11 miles to the project location. Project is located on the north side of Brace Road.	

Nature of Activity (Description of project, include all features, see instructions):

The project is to divide perform a minor land division to divided a 1-acre parcel with an existing single-family residence into three lots in the Town of Loomis. As part of the subdivision, the applicant is proposing to construct a driveway to provide access to the two new lots. The construction of the driveway will require placement of fill in two areas of a drainage ditch that serves as a local stormwater conveyance. The driveway will be 20-feet wide and will extend approximately 250-feet from Brace Road to the northern boundary of the parcel. At the beginning of the driveway (at Brace Road), a culvert will run beneath the driveway to connect an existing culvert (from beneath Brace Road) to the stormwater drainage ditch that exists along the western edge of the parcel. The attached scale drawing shows the location of the driveway, the drainage ditch, and the wetland areas proposed for filling. Note that only a small portion of the wetlands associated with the drainage ditch will be affected by the proposed project.

Project Purpose (Description the reason or purpose of the project, see instructions):

The purpose of the project is to allow the applicant to create two additional lots from an existing 1-acre parcel. The driveway is a necessary condition of the land division process to allow access to the new building sites. After the driveway is constructed the applicant will sell the lots.

Use Box 6 if dredged and/or fill material is to be discharged:

Box 6 Reason(s) for Discharge into waters of the United States:

The reason for the placement of the fill is to allow construction of a driveway that will enable access to two building lots that are being partitioned from a 1-acre parcel.

Type(s) of material being discharged and the amount of each type in cubic yards:

The material being used as fill will be road road aggregate for use as base material for the driveway.

Total surface area in acres of wetlands or other waters of the U.S. filled (see instructions):

The total surface area of wetland areas that will be filled is 0.01 acre.

Indicate in ACRES and LINEAR FEET (where appropriate) the proposed impacts to **waters of the United States**, and identify the impact(s) as permanent and/or temporary for each water body type listed below:

Water Body Type	Permanent		Temporary	
	Acres	Linear feet	Acres	Linear feet
Wetland	0.01	30		
Riparian streambed				
Unveg. streambed				
Lake				
Ocean				
Other				
Total:	0.01	30		

Potential indirect and/or cumulative impacts of proposed discharge (if any):
none.

Required drawings (see instructions):

Vicinity map: ☒ Attached (or mail copy separately if applying electronically)

To-scale Plan view drawing(s): ☒ Attached (or mail copy separately if applying electronically)

To-scale elevation and/or Cross Section drawing(s): ☒ Attached (or mail copy separately if applying electronically)

Has a wetlands/waters of the U.S. delineation been completed?

☒ Yes, Attached (or mail copy separately if applying electronically) ☐ No

If a delineation has been completed, has it been verified in writing by the Corps?

☐ Yes, Date of approved jurisdictional determination (m/d/yyyy): Corps file number: ☒ No

Please attach¹ one or more color photographs of the existing conditions (aerials if possible).

¹or mail copy separately if applying electronically

Dredge Volume: Indicate in CUBIC YARDS the quantity of material to be dredged or used as fill: The approximate amount of material that will be used to fill the wetland areas during construction of the driveway is 46 cubic yards.

Indicate type(s) of material proposed to be discharged in waters of the United States:

The material used to fill the wetland areas will be clean road base aggregate from commercial suppliers in the region.

For proposed discharges of dredged material into waters of the U.S. (including beach nourishment), please attach² a proposed Sampling and Analysis Plan (SAP) prepared according to Inland Testing Manual (ITM) guidelines (including Tier I information, if available).

²or mail copy separately if applying electronically

Is any portion of the work already complete? ☐ YES ☒ NO

If yes, describe the work:

Box 7 Intended NWP permit number³: 41

Intended NWP permit number (2nd): 39

Intended NWP number (3rd):

³Enter the intended permit type(s). See NWP regulations for permit types and qualification information (http://www.usace.army.mil/inet/functions/cw/cecwo/reg/nationwide_permits.htm).

Box 8 Authority:

Is Section 10 of the Rivers and Harbors Act applicable?: ☐ YES ☒ NO

Is Section 404 of the Clean Water Act applicable?: ☒ YES ☐ NO

Box 9 Is the discharge of fill or dredged material for which Section 10/404 authorization is sought part of a larger plan of development?: ☐ YES ☒ NO

If discharge of fill or dredged material is part of development, name and proposed schedule for that larger development (start-up, duration, and completion dates):

Location of larger development (If discharge of fill or dredged material is part of a plan of development, a map of suitable quality and detail of the entire project site should be included):

Total area in acres of entire project area (including larger plan of development, where applicable):
~ 1 acre

Box 10 Threatened or Endangered Species

Please list any federally-listed (or proposed) threatened or endangered species or critical habitat within the project area (use scientific names (e.g., Genus species), if known):

a. none

b.

c.

d.

e.

f.

Have surveys, using U.S. Fish and Wildlife Service/NOAA Fisheries protocols, been conducted?

☐ Yes, Report attached (or mail copy separately if applying electronically) ☒ No

If a federally-listed species would be impacted, please provide a description and a biological evaluation.

☐ Yes, Report attached (or mail copy separately if applying electronically) ☐ Not attached

Has the USFWS/NOAA Fisheries issued a Biological Opinion?

☐ Yes, Attached (or mail copy separately if applying electronically) ☒ No

If yes, list date Opinion was issued (m/d/yyyy):

Has Section 7 consultation been initiated by another federal agency?

☐ Yes, Initiation letter attached (or mail copy separately if applying electronically) ☒ No

Has Section 10 consultation been initiated for the proposed project?

☐ Yes, Initiation letter attached (or mail copy separately if applying electronically) ☒ No

Box 11 Historic properties and cultural resources:

Please list any historic properties listed (or eligible to be listed) on the National Register of Historic Places:

a. none

b.

c.

d.

e.

f.

Are any cultural resources of any type known to exist on-site?

☐ Yes ☒ No

Has an archaeological records search been conducted?

☐ Yes, Report attached (or mail copy separately if applying electronically) ☒ No

Has a archaeological pedestrian survey been conducted for the site?

☐ Yes, Report attached (or mail copy separately if applying electronically) ☒ No

Has a Section 106 MOA been signed by another federal agency and the SHPO?

☐ Yes, Attached (or mail copy separately if applying electronically) ☒ No

If yes, list date MOA was signed (m/d/yyyy):

Has Section 106 consultation been initiated by another federal agency?

☐ Yes, Initiation letter attached (or mail copy separately if applying electronically)

☒ No

Box 12 Measures taken to avoid and minimize impacts to waters of the United States (if any):

The potential impacts to wetland areas are unavoidable. The driveway is necessary to access the new lots proposed by the minor land division. The proposed driveway must be located along the western edge of the property because of the existing house and the driveway on the eastern side of the lot. In addition, the driveway must maintain a suitable separation from the house. The driveway avoids the majority of the wetland area, encroaching only where the driveway enters Brace Road and crosses the storm water ditch and a small area where storm water overflows the ditch.

Include multiple copies of Box 13 for separate sites.

Box 13 Proposed Compensatory Mitigation (site 1 of 1) related to fill/excavation and dredge activities. Indicate in ACRES and LINEAR FEET (where appropriate) the total quantity of waters of the United States proposed to be created, restored, enhanced and/or preserved for purposes of providing compensatory mitigation. Indicate water body type (wetland, riparian streambed, unvegetated streambed, lake, ocean, other) or non-jurisdictional (uplands⁵). Indicate mitigation type (on- or off-site by applicant, mitigation bank, in-lieu fee program):

Water Body Type	Created	Restored	Enhanced	Preserved	Mitigation type
Example: wetland	0.8 acre	0.2 acre	-	-	On-site by app
Example: riparian stream	-	-	3.0 acres/1300 lf	-	ILFP
Totals:					

⁵ For uplands, please indicate if designed as an upland buffer.

If no mitigation is proposed, provide detailed explanation of why no mitigation would be necessary:

The applicant does not believe compensatory mitigation is warranted for this action because the wetlands have formed in a man-made drainage ditch and the contemplated action involves reshaping the ditch. The accompanying wetland delineation provides evidence that the wetlands have developed only as a result of stormwater flows in a ditch. The wetland areas that would be affected by the proposed project are related to an area around a culvert end from beneath Brace Road and an area where storm water flows exceed the ditch capacity. The applicants project does not disturb the the ditch itself other than to extend an existing culvert to allow access from the driveway to Brace Road and avoid impeding storm water flows. In addition, the applicant proposes to reshape the ditch bank to minimize the potential for stormwater flows to flow across the upland areas of the lot.

Has a draft/conceptual mitigation plan been prepared in accordance with the Army Corps of Engineers District guidelines? ☐ Yes, Attached (or mail copy separately if applying electronically) ☒ No

Mitigation site latitude & longitude (D/M/S, DD, or UTM):	USGS Quad map name:
Assessors parcel number:	Section, Township, Range, USGS Quadrangle Map, Latitude/Longitude:
Other location descriptions, if known:	
Directions to the mitigation location:	

Box 14 Water Quality Certification (see instructions):Applying for certification? ☐ Yes, Attached (or mail copy separately if applying electronically) ☒ NoCertification issued? ☐ Yes, Attached (or mail copy separately if applying electronically) ☒ NoExempt? ☐ Yes ☐ NoIf exempt, state why: Agency concurrence? ☐ Yes, Attached ☐ No**Box 15 Coastal Zone Management Act** (see instructions):Is the project located within the Coastal Zone? ☐ Yes ☒ No

If yes, applying for a coastal commission-approved Coastal Development Permit?

☐ Yes, Attached (or mail copy separately if applying electronically) ☐ No

If no, applying for separate CZMA-consistency certification?

☐ Yes, Attached (or mail copy separately if applying electronically) ☒ NoPermit/Consistency issued? ☐ Yes, Attached (or mail copy separately if applying electronically) ☐ NoExempt? ☐ Yes ☐ No

If exempt, state why:

Box 16 List of other certifications or approvals/denials received from other federal, state, or local agencies for work described in this application:

Agency	Type Approval ⁴	Identification No.	Date Applied	Date Approved	Date Denied
City of Loomis	Minor Land Division	06-22	December 2006	Approval Pending	

⁴ Would include but is not restricted to zoning, building, and flood plain permits**NWP General conditions (GC) checklist:****1. Navigation:**Project would be in compliance with GC? ☒ Yes ☐ No**2. Proper Maintenance:**Project would be in compliance with GC? ☒ Yes ☐ No**3. Erosion and Siltation Controls:**Project would be in compliance with GC? ☒ Yes ☐ No**4. Aquatic Life Movements:**Project would be in compliance with GC? ☒ Yes ☐ No

5. Equipment:

Project would be in compliance with GC? ☒ Yes ☐ No

6. Regional and Case-by-Case Conditions:

Complete the Regional Conditions checklist below.

Project would be in compliance with any Case-by-case conditions? ☒ Yes ☐ No

7. Wild and Scenic Rivers:

Project would be in compliance with GC? ☒ Yes ☐ No

8. Tribal Rights:

Project would be in compliance with GC? ☒ Yes ☐ No

9. Water Quality (401 Certification): see Box 14 above.

10. Coastal Zone Permit: see Box 15 above.

11. Endangered Species: see Box 11 above.

12. Historic Properties: see Box 12 above.

13. Notification (*Check mark and provide those that apply*)

☒ NWP 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43: Delineation of wetlands and other waters of the U.S.

☐ NWP 7: Original Design Capacity & Configurations

☐ NWP 14: Compensatory Mitigation Proposal & written statement describing how temporary losses will be minimized to the maximum extent possible

☐ NWP 21: Office of Surface Mining or State-approved mitigation Plan

☐ NWP 27: Documentation of Prior Condition of Site

☐ NWP 29: Past use of NWP, statement of personal residence, parcel size description, land description

☐ NWP 31 (for repeat use): 5 year Maintenance Plan, baseline channel information, delineation, and disposal site information

☐ NWP 33: Restoration Plan

☒ NWP 39, 43, and 44: Written Statement on Avoidance and Minimization Measures

☒ NWP 39 and 42: Compensatory Mitigation Plan/Justifications of no plan

☐ NWP 40: Compensatory Mitigation Proposal

- ☐ NWP 43: Maintenance Plan (for new construction) and compensatory mitigation proposal
- ☐ NWP 44: Description of affected waters, minimization measures and reclamation plan
- ☐ NWPs 12, 14, 29, 39, 40, 42, 43, and 44: FEMA map, FEMA construction requirements and demonstration of FEMA compliance

14. Compliance Certification:

Applicant is aware of this post-construction requirement? ☒ Yes ☐ No

15. Use of Multiple Nationwide Permits:

Applicant is aware that if total proposed acreage of impact exceeds acreage limit of NWP with highest specified acreage, no NWP can be issued? ☒ Yes ☐ No

16. Water Supply Intakes:

Project would be in compliance with GC? ☒ Yes ☐ No

17. Shellfish Beds:

Shellfish beds present? ☐ Yes ☒ No

Project would be in compliance with GC? ☒ Yes ☐ No

18. Suitable Material:

Project would be in compliance with GC? ☒ Yes ☐ No

19. Mitigation:

Project would be in compliance with GC? ☒ Yes ☐ No

20. Spawning Areas :

Spawning areas present? ☐ Yes ☒ No

Project would be in compliance with GC? ☐ Yes ☐ No

21. Management of Water Flows:

Project would be in compliance with GC? ☒ Yes ☐ No

22. Adverse Effects From Impoundments:

Project would be in compliance with GC? ☒ Yes ☐ No

23. Waterfowl Breeding Areas:

Waterfowl breeding areas present? ☐ Yes ☒ No

Project would be in compliance with GC? ☒ Yes ☐ No

24. Removal of Temporary Fills:

Project would be in compliance with GC? ☒ Yes ☐ No

25. Designated Critical Waters (*check those that apply*)

Includes:

- 1) ☐ NOAA designated marine sanctuaries,
- 2) ☐ National Wild and Scenic Rivers,
- 3) ☐ Critical habitat for Federally listed species,
- 4) ☐ Coral reefs,
- 5) ☐ State natural heritage sites,
- 6) ☐ Officially designated waters

Applicant is aware of the restrictions a) and b) below? ☒ Yes ☐ No

a) NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 : No NWP can be issued (except in certain cases described in full text of GC#25).

b) NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38:
Notification required.

26. Fills within 100-Year Floodplains:

Project would be within 100-year floodplains? ☐ Yes ☒ No

If yes, project would be in compliance with restrictions a) and b) below? ☐ Yes ☐ No

a) Discharges Below Headwaters (*below point of 5 cfs*) resulting in permanent above-grade fills:

NWP 29, 39, 40, 42, 43, and 44: No NWP can be issued.

NWP 12 and 14: Notification required.

b) Discharges in Headwaters (*above point of 5 cfs*) resulting in permanent above-grade fills:

Flood Fringe

NWP 12, 14, 29, 39, 40, 42, 43, and 44: Notification required.

Floodway

NWP 29, 39, 40, 42, 43, and 44: No NWP can be issued.

NWP 12 and 14: Notification required.

27. Construction Period

Applicant is aware of requirements under this GC? ☒ Yes ☐ No

NWP-specific requirements checklist:

1. Nationwide 03 (case iii):

Evidence of damage (due to storm, flood, etc.) such as recent topographic surveys or photographs attached? ☐ Yes ☐ No

2. Nationwide 07:

NPDES permit or other proof of CWA Section 402 compliance attached? ☐ Yes ☐ No

3. Nationwides 13, 14, 18, 29, 39, 40, 42, 43, 44:

Activity/crossing must be part of a single and complete project.

Project would be in compliance with this requirement? ☒ Yes ☐ No

4. Nationwide 31:

As-built or approved engineering drawings for each structure attached? ☐ Yes ☐ No

5. Nationwide 40:

Documentation of an NRCS exemption, a NRCS-certified wetland delineation, and a NRCS-approved compensatory mitigation plan attached? ☐ Yes ☐ No

NWP Regional Conditions (RC) checklist:

I. Los Angeles District (SPL) in Arizona and California:

1. Is the project located within a coastal watershed from the southern reach of the Santa Monica Mountains in Los Angeles County to the San Luis Obispo County/Monterey County boundary? ☐ Yes ☐ No

If yes, then would the project meet the requirement that all road crossings must employ a bridge crossing design that ensures passage and/or spawning of steelhead is not hindered in any way (see full RC text)? ☐ Yes ☐ No

2. Is the project located within the State of Arizona or the Mojave and Sonoran (Colorado) desert regions of California in the Los Angeles District (generally north and east of the San Gabriel, San Bernardino, San Jacinto, and Santa Rosa mountain ranges, and south of Little Lake, Inyo County)? ☐ Yes ☐ No

If yes, no NWP, except 1, 2, 3, 4, 5, 6, 9, 10, 11, 20, 22, 27, 30, 31, 32, 35, 37, and 38 (or other nationwide or regional general permits that specifically authorize maintenance of previously authorized structures or fill), can be used to authorize the discharge of dredged or fill material into a jurisdictional special aquatic site as defined by 40 CFR 230.40-45.

If yes, is applicant aware of restriction above? ☐ Yes ☐ No

3. Does NWP or Regional General Permit require prior notification (a PCN) be given to the District Engineer? ☐ Yes ☐ No

If yes, are the required color photographs or color photocopies of the project area taken from representative points documented on a site map included?

☐ Yes ☐ No

4. Is project located in a special aquatic site as defined by 40 CFR 230.40-45 or in a perennial watercourse or waterbody in the State of Arizona or in the Mojave or Sonoran (Colorado) desert regions of California?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

5. Is project located in an areas designated as Essential Fish Habitat?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

6. Is project located within a watershed in the Santa Monica Mountains in Los Angeles and Ventura counties bounded by Calleguas Creek on the west, by Highway 101 on the north and east, and by Sunset Boulevard and Pacific Ocean on the south?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

7. Would project impact jurisdictional vernal pools?

☐ Yes ☐ No

If yes, then an individual permit is required.

8. Is project within the Murrieta Creek and Temecula Creek watersheds in Riverside County and does it require new permanent fills in perennial and intermittent watercourses?

☐ Yes ☐ No

If yes, then projects which would otherwise be authorized under NWPs 39, 42, or 43, will require an individual permit.

Is project located in an ephemeral watercourse and is the impact greater than 0.1 acre?

☐ Yes ☐ No

If yes, then projects which would otherwise be authorized under NWPs 39, 42, or 43, will require an individual permit.

9. Is project in San Luis Obispo Creek or Santa Rosa Creek in San Luis Obispo County for bank stabilization projects; or and in Gaviota Creek, Mission Creek or Carpinteria Creek in Santa Barbara County for bank stabilization projects and grade control structures?

☐ Yes ☐ No

If yes, then an individual permit is required.

II. Sacramento District (SPK) in California, Colorado, Nevada, and Utah:

SPK Regional conditions to be applied across the entire Sacramento District including California, Colorado, Nevada, and Utah:

- A. Is the project in a fen? ☐ Yes ☒ No

Nationwide Permits 14, 29, 33, 39, 40, 41, 42, 43, and 44 are withdrawn from use in histosols, including fens. For the use of all other nationwide permits in fens, project proponents are required to notify the Corps using the notification or PCN procedures of the nationwide permit program (General Condition 13). This will be a "Corps only" notification.

- B. Will mitigation be completed before or concurrent with construction of the project?

☐ Yes ☒ No

For all activities using any existing and proposed nationwide permits, mitigation that is required by special condition must be completed before or concurrent with project construction. Where project mitigation involves the use of a mitigation bank or in-lieu fee, payment must be made to the bank or fee-in-lieu program before commencing construction of the permitted activity.

- C. Is a statement attached explaining how avoidance and minimization of impacts were achieved?

☒ Yes ☐ No

For all nationwide permits requiring notification, except 27, the applicant must provide a written statement to the district engineer explaining how avoidance and minimization of losses of waters of the United States were achieved on the project site.

D. Is the project in Lake Tahoe?

☐ Yes

☒ No

All existing and proposed nationwide permits are suspended in the Lake Tahoe Basin in favor of using Regional General Permit 16.

SPK Regional conditions to be applied only in **California**: None

SPK Regional conditions to be applied in **Nevada**: None

SPK Regional conditions to be applied in **Utah**:

A. For use of any nationwide permit with the following attributes, notification of the Corps of Engineers' Utah Regulatory Office, using the "Notification" procedures of the Nationwide Permit Program (General Condition 13), is required, except where certain nationwide permits are restricted and can not be used as indicated in each category. This will be a "Corps only" notification:

1. Does the activity affect waters of the U.S. below the elevation 4217 feet msl adjacent to the Great Salt Lake and below 4500 feet msl adjacent to Utah Lake?

☐ Yes

☐ No

2..Does the activity involve bank stabilization in a perennial stream?

☐ Yes

☐ No

Bank stabilization activities that would affect more than 100 feet of stream length as measured from the upstream portion of the affected bank to the downstream section, narrow the cross-section of the stream, substantially reduce the riparian vegetation, or increase velocities.

3. Does the activity affect springs.?

☐ Yes

☐ No

A spring is an aquatic feature caused by ground water being discharged to the surface, creating wetland and/or stream characteristics. Nationwide Permits 14, 16, 18, 29, 33, 36, 39, 40, 42, 43, and 44 can not be used in spring areas.

SPK Regional conditions to be applied only in **Colorado**:

A. SPK Regional Conditions Applicable to Specific **Nationwide Permits Within Colorado**:

1. Does the action involve the use of Nationwide Permit No. 13 Bank Stabilization?

☐ Yes

☐ No

In Colorado, bank stabilization activities necessary for erosion prevention in streams that average less than 20 feet in width (measured between the ordinary high water marks) are limited to the placement of no more than 1/4 cubic yard of material per running foot below the plane of the ordinary high water mark. Activities greater than 1/4 cubic yard may be authorized if the permittee notifies the District Engineer in accordance with General Condition No. 13 (Notification) and the Corps determines the adverse environmental effects are minimal.

2. Does the activity involve the use of Nationwide Permit No. 27 Stream and Wetland Restoration Activities? ☐ Yes ☐ No

(1) For activities which include a fishery enhancement component, notification will include a letter from the Colorado Division of Wildlife concurring that the project will benefit the fishery; and (2) for projects in streams classified as "Gold Metal Waters", Nationwide Permit No. 27 may not be used. For such projects, the applicant can apply for the existing Colorado Regional General Permit No. CO-00-16900 (Stream Habitat Improvement Structures) or a standard individual permit.

B. SPK Regional Conditions Applicable to All Nationwide Permits Within Colorado.

1. Does the activity involve the use of temporary fills? ☐ Yes ☐ No

Removal of Temporary Fills. General Condition No. 24 (Removal of Temporary Fills) is amended by adding the following: When temporary fills are placed in wetlands in Colorado, a horizontal marker (i.e. fabric, certifies weed-free straw, etc.) must be used to delineate the existing ground elevation of wetlands that will be temporarily filled during construction.

2. Does the activity involve fills in Important Spawning Areas? ☐ Yes ☐ No

Important Spawning Areas. General Condition No. 20 (Spawning Areas) is amended by adding the following: In Colorado, activities which; (1) would destroy important spawning areas; (2) would be conducted in these waters during spawning seasons for trout and Kokanee salmon (spawning season for rainbow and cutthroat trout is March 15 through July 15, and for brown and brook trout and Kokanee salmon is September 15 through March 15); or (3) would have greater than minimal release of sediments during these spawning seasons are not authorized by any nationwide permit. Bio-engineering techniques, such as native riparian shrub plantings are required for all bank protection activities that exceed 50 linear feet in important spawning areas. Important spawning areas are identified in the attached list (enclosure 1) of critical resource waters in Colorado.

C. SPK Regional Conditions for Revocations Specific to Certain Geographic Areas within Colorado:

1. Does any activity occur in a fen? ☐ Yes ☐ No

Fens: In Colorado, nationwide permits No. 1, 2, 4, 6-11, 13-19, 21-25, 28-31, 33-36, and 39-44 are revoked for activities in these regionally important aquatic resources. Fens are defined as wetlands which are characterized by water logged spongy ground and contain (in all or part) soils classified as histosols* or mineral soils with a histic epipedon*. To determine whether this provision applies, the entire wetland must be examined for the presence of histosols or histic epipedons.

*Histosols have 40 centimeters (16 inches) or more of the upper 80 centimeters (32 inches) an organic soil material (or less over bedrock). Organic soil material has an organic carbon content (by weight) of 12 to 18 percent, or more, depending on the clay content of the soil. Histic epipedons have a 20 to 60 centimeter-thick (8-24 inches) organic soil horizon that is at or near the surface of a mineral soil. Histosols and histic epipedons are widely recognized as organic soils formed by slow accumulation of plant debris in

waterlogged situations where it cannot decompose. (More information on histosols can be obtained from the U.S. Department of Agriculture, Natural Resources Conservation Service publications on Keys to Soil Taxonomy and Field Indicators of Hydric Soils in the United States.

2. Does any activity occur within 100 feet of a spring? ☐ Yes ☐ No

Springs: Within the State of Colorado, all nationwide permits are revoked within 100 feet of the water source of natural springs. A spring source is defined as any location where ground water emanates from a point in the ground. For purposes of this regional condition, springs do not include seeps or other discharges that do not have a defined channel.

D. Practices Applicable to All **Nationwide Permits Within Colorado (SPK).**

The following provides additional information regarding minimization of impacts and compliance with existing general Conditions:

1. Permittees are reminded of the existing General Condition No. 18 which prohibits the use of unsuitable material. Organic debris, building waste, asphalt, car bodies, and junk materials are not suitable material. Also, General Condition No. 3 requires appropriate erosion and sediment controls (i.e. all fills must be properly stabilized to prevent erosion and siltation into waters and wetlands). Streambed material or other small aggregate material placed alone for bank stabilization will not meet General Condition No. 3.

2. Permittees are encouraged to mitigate project impacts prior to or concurrent with project construction. This issue continues to be a concern and the Corps prefers at this time to request that nationwide permit notification submittals explicitly address prior to or concurrent mitigation or the reasons why mitigation cannot occur prior to or concurrent with project construction.

3. Does any activity occur within a critical resource water of Colorado? ☐ Yes ☐ No

In accordance with General Condition No. 25 (Designated Critical Resource Waters) waters within the State of Colorado listed in Enclosure 1 (Critical Resource Waters in Colorado) are designated as critical resource waters.

Enclosure 1

CRITICAL RESOURCE WATERS IN COLORADO

In accordance with General Condition No. 25 (Designated Critical Resource Waters) the following waters within the State of Colorado are designated as critical resource waters:

a. **Outstanding Natural Resource Waters:**

Cache la Poudre Basin: All tributaries to the cache La Poudre River system, including all lakes and reservoirs, which are within Rock Mountain National Park;

Laramie River: All tributaries to the Laramie River system, including all lakes and reservoirs which are in the Rawah Wilderness Area;

North Fork Gunnison River: All tributaries to North Fork Gunnison River system, including lakes, reservoirs and wetlands within the West Elk and Raggeds Wilderness Area;

North Platte River: All tributaries to the North Platte River and Encampment Rivers, including all lakes and reservoirs, which are in the Mount Zirkle Wilderness Area;

San Miguel River: All tributaries, lakes, reservoirs, and wetlands within the boundaries of the Lizard Head and Mt. Sneffels Wilderness Area;

Roaring Fork River: All tributaries to the Roaring Fork River system, including lakes, reservoirs and wetlands within the Maroon Bells/Snowmass Wilderness Area;

Umcompahgre River: All tributaries to the Uncompahgre River system, including lakes, reservoirs, and wetlands within the Mt. Sneffels and Big Blue Wilderness Areas;

Upper Arkansas River Basin: All streams, wetlands, lakes, and reservoirs within the Mount Massive and Collegiate Peaks Wilderness Areas;

Upper Colorado River: Mainstem of the Colorado River system including tributaries, lakes, reservoirs, and wetlands within Rocky Mountain National Park;

Upper Gunnison River Basin: All tributaries, lakes, reservoirs, and wetlands in the La Garita Wilderness Area. All tributaries to the Gunnison River system, including lakes, reservoirs, and wetlands within West Elk, Collegiate Peaks, Maroon Bells, Raggeds, Fossil Ridge, Oh-Be-Joyful and Big Blue Wilderness Areas;

White River: Trapper's Lake and tributaries to Trapper's Lake;

Yampa River: All tributaries to the Yampa River, including lakes, reservoirs and wetlands within Zirkle Wilderness Area.

b. **Important Spawning areas:** In Colorado , important spawning areas are defined as "Gold Metal Waters" as identified by the State of Colorado. Gold Metal Waters are defined in the Colorado Fishing Season Information brochure, on the Colorado Division of Wildlife website www.dnr.state.co.us, or can be obtained at any Corps office in Colorado.

III. Albuquerque District (SPA) in Colorado, New Mexico, and Texas:

SPA Regional conditions to be applied only in Colorado

1. Is the project for bank stabilization activities necessary for erosion prevention in streams that average less than 20 feet in width (measured between the ordinary high water

marks) limited to the placement of no more than ¼ cubic yards of material per running foot below the plane of the ordinary high water mark?

☐ Yes ☐ No

If yes, notification pursuant to general condition # 13 is required.

2. Is the project located in streams classified as "Gold Metal Waters"?

☐ Yes ☐ No

If yes, nationwide permit number 27 may not be used. Applicant must apply for a Standard Individual permit.

3. Is project for Stream and Wetland Restoration activities which include a fishery enhancement component

☐ Yes ☐ No

If yes, letter from the Colorado Division of Wildlife concurring that the project will benefit the fishery.

4. Is the project using or removing temporary fills in wetlands?

☐ Yes ☐ No

If yes, a horizontal marker (i.e., fabric, certified weed-free straw, etc.) must be used to delineate the existing ground elevation of wetlands that will be temporarily used during construction.

5. Is project located in an Important Spawning Area and is the work being done during spawning season (March 15 – July 15; and September 15 – July 15)?

☐ Yes ☐ No

If yes, not authorized by any nationwide permit.

If no, bio-engineering techniques, such as native riparian shrub plantings are required for all bank protection activities that exceed 50 linear feet in important spawning areas. See Critical Resource Waters in Colorado.

6. Is project located in a wetland, and are fens present?

☐ Yes ☐ No

If yes, Nationwide Permit Numbers 1, 2, 4, 6-11, 13-19, 21-25, 28-31, 33-36, and 39-44 are revoked.

7. Is project located within 100 feet of the water source of a natural spring?

☐ Yes ☐ No

If yes, all nationwide permits are revoked.

8. Does NWP or Regional General Permit require prior notification (a PCN) be given to the District Engineer?

☐ Yes ☐ No

If yes, are the required color photographs or color photocopies of the project area taken from representative points documented on a site map included?

☐ Yes ☐ No

9. Is project located in a special aquatic site as defined by 40 CFR 230.40-45 or in a perennial watercourse or waterbody in the State of Colorado?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

10. Is project located in a areas designated as Essential Fish Habitat?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

SPA Regional conditions to be applied only in **New Mexico**

1. Is the project for utility line discharges crossing in waterways wider than 200 feet?

☐ Yes ☐ No

If yes, notification pursuant to general condition # 13 is required.

2. Is the project for bank stabilization activities necessary for erosion prevention in streams that average less than 20 feet in width (measured between the ordinary high water marks) limited to the placement of no more than ¼ cubic yards of material per running foot below the plane of the ordinary high water mark?

☐ Yes ☐ No

If yes, notification pursuant to general condition # 13 is required.

3. Is the project for linear transportation crossings in perennial waterways?

☐ Yes ☐ No

If yes, culverts shall be designed to provide for fish passage. Culverts shall be designed and installed so that waterflow shall be at least 0.8 feet deep, the maximum hydraulic drop in the culvert shall not exceed 0.8 ft, and the maximum velocity shall not exceed 4.0 fps for culverts less than 100 feet long, 3.0 fps for culverts 100-200 feet long, and 2.0 fps for culverts longer than 200 feet.

4. Is project for stream and wetland restoration or enhancement activities that incorporate the use of rip-rap, channelization, or levees?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

5. Is the project for residential, commercial, and institutional development?

☐ Yes ☐ No

If yes, not authorized for channelization or relocation of any intermittent or perennial water course regardless of size or rate of flow.

6. Is project for mining activities?

☐ Yes ☐ No

If yes, nationwide permit is revoked.

7. Is the project activity involve fills in perennial waters or wetlands larger than ½ acre?

☐ Yes ☐ No

If yes, applicant must apply for a Standard Individual Permit.

8. Is project located within 100 feet of the water source of a natural spring?

☐ Yes ☐ No

If yes, all nationwide permits are revoked.

9. Does the project require temporary water diversion or totally dewatering more than 100 linear feet of stream channel?

☐ Yes ☐ No

If yes, applicant must apply for a Standard Individual Permit.

If no, notification pursuant to general condition # 13 is required.

10. Is the project located in a special aquatic site, including wetlands, whose principal activity is not water dependent?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required?

11. Is the project requiring external notification sent to the appropriate city, county, or tribal agencies for their comments?

☐ Yes ☐ No

If yes, for activities authorized by NWP No. 4, 13, 27, and 30 the District Engineer (DE) will notify the New Mexico Department of Game and Fish and other appropriate agencies.

12. Is project using any poured concrete, heavy equipment, fuel, or petrochemicals within 100 feet of any water of the U.S. including wetlands?

☐ Yes ☐ No

If yes, notification pursuant to general condition #13 is required.

13. Is project located in an important spawning area and is the work to be done during spawning season (March 15 – July 15; and September 15 – July 15)?

☐ Yes ☐ No

If yes, not authorized by any nationwide

If no, notification pursuant to general condition #13 is required.

14. Will project result in changes to local stream gradient, streambed elevation, direction, velocity of streamflow, or cause significant changes in channel size, shape and streambank habitat (unless the project specifically designed to restore previously degraded and unstable streams)?

☐ Yes

☐ No

If yes, notification pursuant to general condition # 13 is required.

15. Is project located in an area designated as a Critical Resource Water?

☐ Yes

☐ No

If yes, notification pursuant to general condition #13 is required.

SPA Regional conditions to be applied only in Texas

1. Is project located in an area designated as a Critical Resource Water?

☐ Yes

☐ No

If yes, notification pursuant to general condition #13 is required.

IV. San Francisco District (SPN):

No SPN Regional Condition checklist is currently available. Please refer to original text of SPN regional conditions.

End of form

Instructions:

1) Box 5:

- a. **Nature of Activity:** Describe the overall activity or project. Give appropriate dimensions of structures such as wingwalls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms. The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to

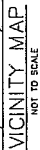
do. If more space is needed, attach a separate sheet marked "Box 5 Nature of Activity."

- b. **Proposed Project Purpose:** Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project.

2) Box 6:

- a. Corps jurisdiction consists of waters of the U.S. Waters of the U.S. are defined under 33 CFR part 329 as "navigable waters of the United States" and/or under 33 CFR part 328.3(a) as "waters of the United States." Under Section 404 of the Clean water Act, either the ordinary high water mark (non-tidal) or the high tide line (tidal), as well as any adjacent wetlands, demarcate waters of the U.S. Under Section 10 of the Rivers and Harbors Act, either the mean high water mark (tidal) or the ordinary high water mark (non-tidal), as well as any adjacent wetlands, demarcate waters of the U.S. Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (1987 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology). The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.
- b. **Required drawings:** Submit one legible copy of all drawings (8 1/2 x 11-inch or 11 x 17-inch) with a 1-inch margin around the entire sheet. The title box shall contain the title of proposed activity, name of water body, county, city, date, and sheet number.
 - i. Vicinity map: Cover an area large enough so the project can be easily located, include arrow marking the project area, Identifiable land marks, name or number of roads, north arrow, and scale.
 - ii. Plan view: Include existing bank lines, ordinary high water mark line(s), average water depth around the activity, dimensions of the proposed project, dimensions of any structures immediately adjacent to the proposed activity, north arrow, scale.
 - iii. Elevation and/or cross-section views: water elevation as shown on plan view drawing, dimensions of the proposed project, dimensions of any structures immediately adjacent to the proposed activity, scale

- 3) **Box 14:** You may need State water quality certification from the appropriate state or tribal agency (e.g., Regional Water Quality Control Board for non-tribal California lands). You need not have obtained water quality certification before applying for a Corps nationwide permit verification.
- 4) **Box 15:** You may need a federal coastal consistency certification under the Coastal Zone Management Act from the appropriate state agency (e.g., California Coastal Commission for California Coastal Commission). You need not have obtained federal coastal consistency certification before applying for a Corps nationwide permit verification.



ABBREVIATIONS:

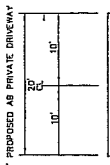
EP	EDGE OF PAVEMENT
ST	STREET
R/W	RIGHT-OF-WAY
A/C, AC	ASPHALT CONCRETE
A/B, AB	AGGREGATE BASE
CUPA	CORRUGATED METAL
CUP	CORRUGATED METAL
CL	CENTERLINE
VC	VERTICAL CURVE
BVC	BEGIN VERTICAL CURVE
ENC	END VERTICAL CURVE
CT	CUBIC YARD
TYPE	TYPICAL
FL	FLOW LINE
LF	LINEAR FOOT
SH	SEWER MANHOLE
PL	PROPERTY LINE

*** NOTE:**

**TOPOGRAPHY AND SURVEY WAS PROVIDED BY
GARDNER ASSOCIATES SURVYOR & ENGINEERS**

A.P.N. 044-123

GRADING PLANS FOR:
SCALE: 1"=20'



PROPOSED AB PRIVATE DRIVEWAY
TO BE 18' WIDE

TYPICAL DRIVEWAY SECTION

LEGEND	
EXISTING	PROPOSED
BOUNDARY LINE	-----
ADJACENT LINE	-----
DRIVEWAY	-----
CENTER LINE	-----
EASEMENT	-----

251

6

FREE TO BE REMOVED



PROJECT OWNER

KAI KRIENKE

5397 BRACE ROAD
LOOMIS, CA 95650

ASSOCIATED LAND CONSULTANTS

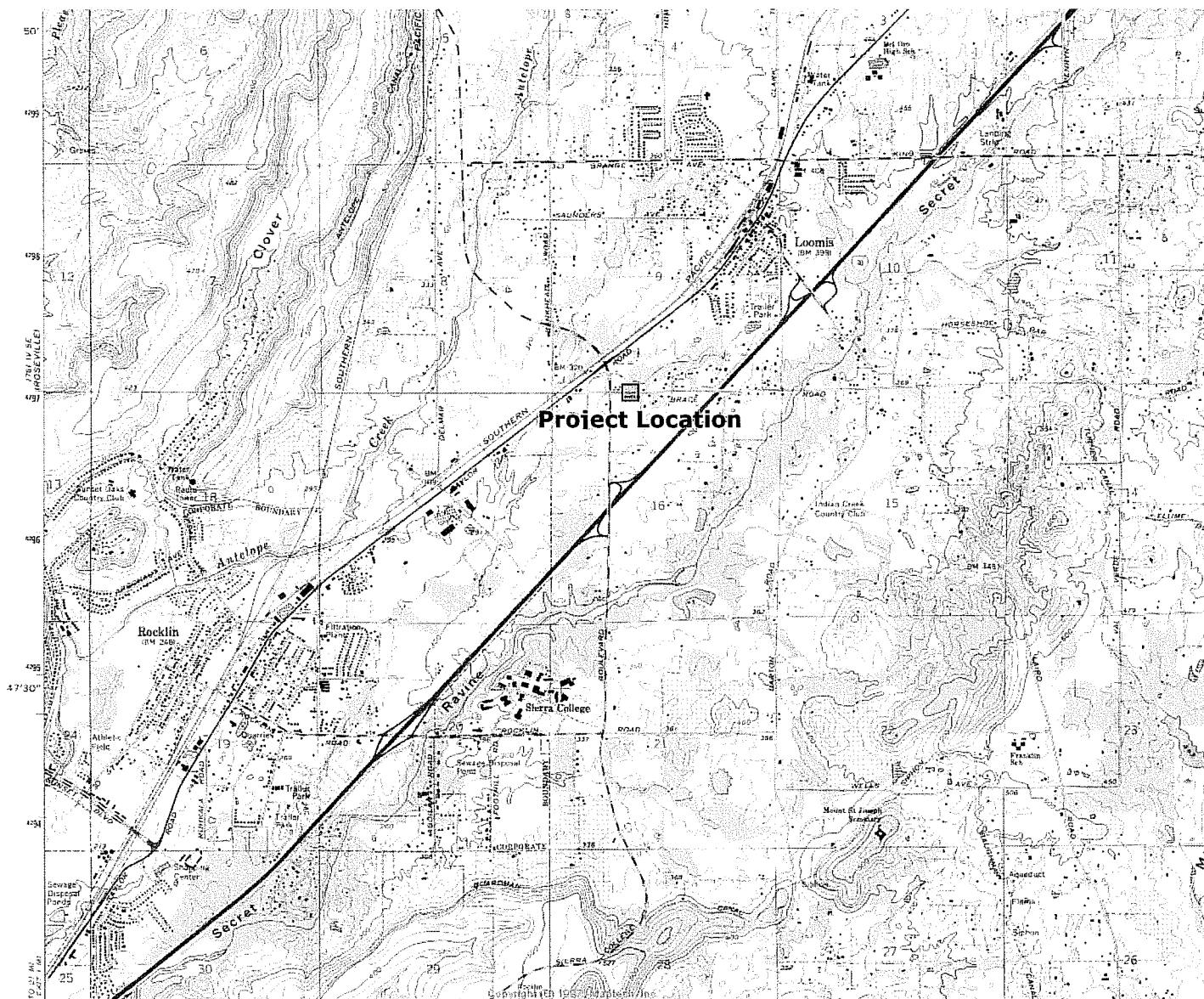
CIVIL ENGINEERING • LAND SURVEYING • PLANNING

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(916)985-7242 • FAX (916)985-5432

PLACER COUNTY

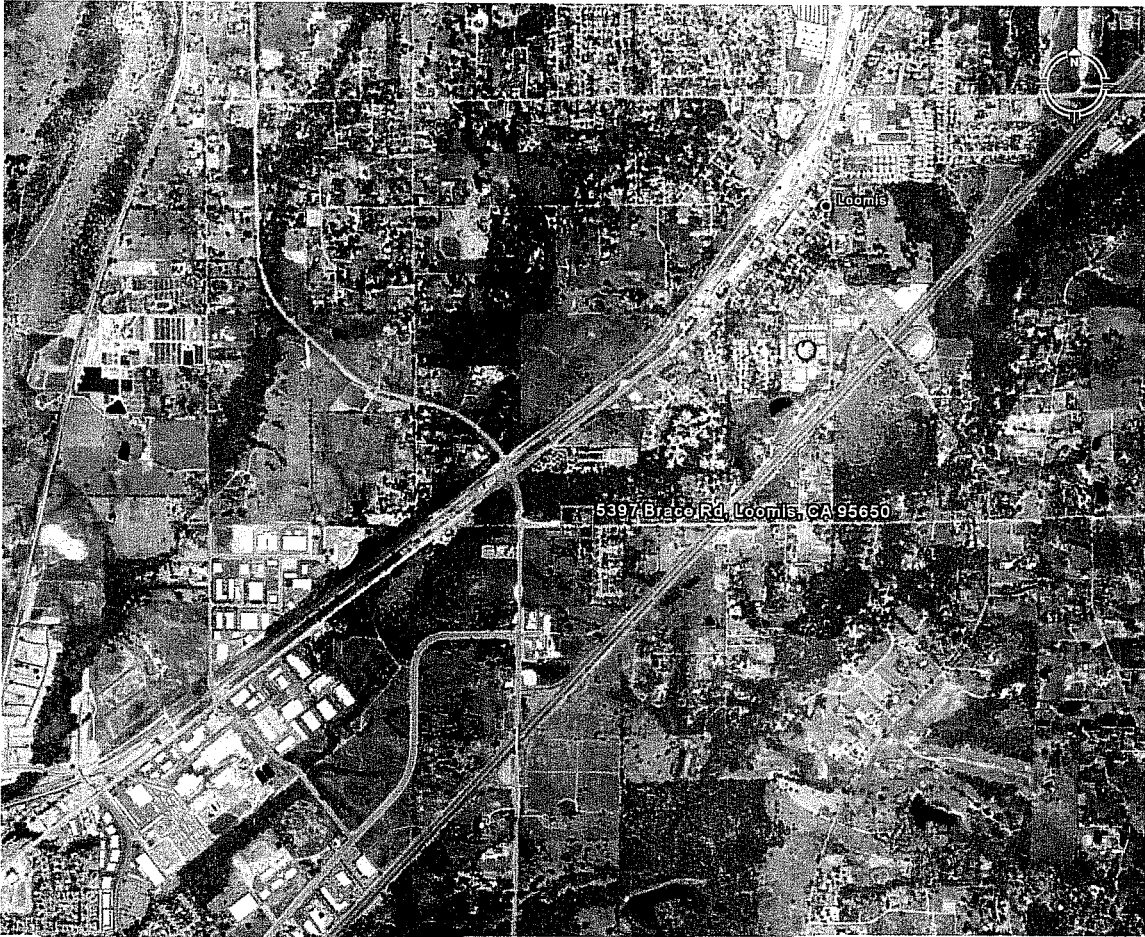
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MUFORD



Attachment 1. Location of Proposed Project at 5397 Brace Road; Loomis, CA 95650.

Source: Excerpt from United States Geological Survey 1:24000 topographical quadrangle for Rocklin, CA; published 1967 and photorevised in 1981. This excerpt is a reduction of the original map and is not to scale.



Attachment 2. Aerial Photograph of Site Location.

WETLAND DELINEATION REPORT KRIENKE PROPERTY LOOMIS, CALIFORNIA

September 14, 2006



Prepared for
Kai Krienke
5397 Brace Road
Loomis, California 95650
(916) 652-0231



Prepared by
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Tetra Tech Project Number P4030.01

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APPENDICES

- A Photograph Journal
- B Data Forms

LIST OF FIGURES

- 1 Location Map
- 2 Wetland Areas

ADDENDUM

- 1 Surveyed Delineation Map

1.0 INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech) has prepared this wetland delineation report for Mr. Kai Krienke. The wetland delineation was performed on Placer County Assessor's Parcel Number (APN) 044-123-009 and is herein referred to as the subject site. The subject site is located approximately 500 feet to the east of the intersection of Sierra College Boulevard and Brace Road in Loomis, Placer County, California (Figure 1). At the time of the August 28, 2006 wetland delineation, the subject site was developed with a single-family rural residence, with the remainder a mix of landscaped areas and forest. The subject site totaled approximately 1.1 net acres in size and is currently used for residential purposes.

2.0 DELINEATION METHODOLOGY

Wetland boundaries were delineated using the routine on-site inspection method outlined in the "*Corps of Engineers Wetlands Delineation Manual*," (U.S. Army Corps of Engineers [USACE] 1987) for areas equal to or less than 5 acres in size and problem areas. In accordance with the USACE manual, under normal circumstances, hydrophytic (wetland) vegetation, hydric soils, and hydrologic features must all be present for an area to be considered a wetland.

The central valley of California has unique weather patterns, which make delineating wetlands year-round challenging. Since rain typically only falls during the winter months, wetlands in the central valley typically only retain water during the wet months. According to the definition in the USACE manual, wetlands potentially located on the subject site are considered seasonal wetlands; "*Seasonal wetlands* - In many regions (especially in western states), depressional areas occur that have wetland indicators of all three parameters during the wetter portion of the growing season, but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season." This type of wetland is considered a problem area, because all three indicators are not present during the dry season. Absence or presence of wetland conditions on the subject site was based on soils, with secondary consideration given to the vegetation and hydric indicators since the delineation was performed during the dry season.

In addition, wetland boundaries were delineated by visually observing soil, vegetation, and hydrology characteristics on the subject site. A variety of site-specific information was reviewed before the on-site investigation of the subject site was conducted. The following information was reviewed to verify the potential wetland location and to assist in determining the fieldwork approach:

- Aerial photographs
- U.S. Geological Survey (USGS) topographic quadrangle map
- Soil Conservation Service soil survey
- National wetland inventory (NWI) map

The following sections present the results of the vegetation, soil, and hydrologic surveys for this wetland delineation. Appendix A contains photographs of the subject site.

3.0 EXISTING CONDITIONS

This wetland delineation was performed on August 28, 2006, by Sarah Piper, a biologist. The subject site's physical setting was researched employing a USGS 7.5 Minute Topographic Quadrangle (Quad) Map of the Rocklin Quad. The USGS 7.5 Minute Quad Map has an approximate scale of 1-inch equals 2,000 feet, and shows physical features such as wetlands, roadways, mines, and buildings. No wetlands were depicted on the site on the topographic map. The elevation of the subject site is approximately 330 feet above mean sea level with a general topographic gradient to the north. The location of the subject site is presented on a topographic map in Figure 1.

The soils underlying the subject site have been generally characterized as Andregg Coarse Sandy Loam, 2 to 9 percent slopes. This series consists of moderately deep, gently rolling, well drained soil underlain by weathered granitic bedrock. These soils formed in residuum on low hills in the Loomis basin (USDA SCS 1980).

Andregg Coarse Sandy Loam is not listed as a series on the hydric soils list of California and is classified as group C in the hydrologic soil group list. Group C soils are not considered a hydrologic soil (USDA SCS 1980).

At the time of the wetland delineation on August 28, 2006, the subject site was developed with a single-family rural residence, with the remainder a mix of landscaped areas and forest. The owner recently conducted underbrush clearing activities on the forested area on the northeastern portion of the site. Wetland delineations are typically conducted during the wet season in the late winter and early spring months. The three standard wetland indicators (wetland vegetation, hydrology and hydric soils) are typically present and easily identifiable during the wet season. The plants are in bloom and readily identifiable, there is typically standing water or water present perched below the surface soil, and the soils are gleyed, mottled or exhibit reduction patterns around the plant roots.

The delineation for the subject site was conducted during the dry summer months. Conditions are not ideal for conducting delineation during this time, as the plants are typically dead and dry, making them difficult to identify. Many of the plants were identifiable based on the remnants of flowers still present on the plants. Hydric indicators were based on topographic features as there is no standing water during the dry season.

Based on the information above and the initial site walk, 6 potential wetland areas were identified at the site. The sections below present the observations and investigations of each of the areas.

4.0 WETLAND INDICATORS

Six separate potential wetland areas were observed on the subject site. These areas were named Area 1 through Area 6 for purposes of this report (Figure 2). Areas 1 and 2 were low-lying areas that appeared to have been created during underbrush clearing activities in the recent past. Area 3 was a narrow drainage ditch which traversed through the northwest portion of the site in a general northwesterly direction. Area 4 was an area with slightly depressed topography that

appeared to be a drainage area for the adjacent property to the east. Area 5 was a low-lying area on the northwest corner of the site, and Area 6 was a man made drainage ditch that drained into Area 5, and continued on off the site. The following sections present the wetland indicators found in each of the wetland areas on the subject site.

4.1 VEGETATION

A walkthrough of the subject site was performed to assess the dominant vegetation types. Some of the plant species on the subject site were not recognizable due to recent clearing activities. It was possible to key plants to genus, however due to the decayed state of some of the plant flowers, the species could not be determined. Approximately 85% of the plants found in the potential wetland areas were identified to species. Several of the wetland plants were identifiable despite the decayed flowering parts due to other characteristics such as edged stems on sedges and seed pods on water plantain plants. The identification of these species in the wetland areas was provided enough plant cover to make a determination of wetland status for delineation purposes. Dominant plant species observed at the site that could be identified, were classified for wetland indicator status according to the “National List of Vascular Plant Species that Occur in Wetlands” (United States Fish and Wildlife Service [USFWS] 1988) and characterized as follows:

- Obligate (OBL) – occurs almost always (estimated probability greater than 99 percent) under natural conditions in wetlands.
- Facultative Wetland (FACW) – usually occurs in wetlands (estimated probability 67 to 99 percent), but occasionally found in non-wetlands.
- Facultative (FAC) - equally likely to occur in wetlands or non-wetlands (estimated probability 34 to 66 percent).
- Facultative Upland (FACU) – usually occurs in non-wetlands (estimated probability 67 to 99 percent), but occasionally found in wetlands (estimated probability 1 to 33 percent).
- Obligate Upland (UPL) – occurs almost always (estimated probability greater than 99 percent) under natural conditions in non-wetlands in the region specified.

- No Indicator (NI) – insufficient information available to determine an indicator status.

To further refine these categories, a “+” or “-” sign is used in some instances to indicate the likelihood of a plant occurring in a wetland site. Vegetation information was recorded on USACE routine wetland determination data forms included as Appendix B.

The following table lists plant species observed at each of the Areas at the site and the regional indicator status from the “National List of Vascular Plant Species that Occur in Wetlands” (FWS 1996).

TABLE 1 –Dominant Vegetation on Subject Site

Common Name	Scientific Name	Wetland or Upland Plant	Regional Indicator Status
Area 1**			
Valley Oak	<i>Quercus lobata</i>	Upland	FACU
Fremont Cottonwood	<i>Populus fremontii</i>	Both	FAC+
Area 2**			
Valley Oak	<i>Quercus lobata</i>	Upland	FACU
Area 3**			
Valley Oak	<i>Quercus lobata</i>	Upland	FACU
Area 4			
Sedge	<i>Cyperus spp.</i>	Wetland	FACW, OBL
Water Plantain	<i>Alisma plantago-aquatica</i>	Wetland	OBL
Area 5			
Sedge	<i>Cyperus spp.</i>	Wetland	FACW, OBL
Water Plantain	<i>Alisma plantago-aquatica</i>	Wetland	OBL
Blackberry	<i>Rubus allegheniensis</i>	Both	FAC+
Area 6			
Water Plantain	<i>Alisma plantago-aquatica</i>	Wetland	OBL
Blackberry	<i>Rubus allegheniensis</i>	Both	FAC+
Curly Dock	<i>Rumex crispus</i>	Wetland	FACW-

Notes:

** - No vegetation was observed in the immediate area of the test pit, which was dug out in the area most likely to support pooled water, however these plants indicated were observed near the test pit and included on the forms for informational purposes

FAC – Facultative FACU – Facultative Upland FACW – Facultative Wetland OBL – Obligate Wetland

4.2 HYDROLOGY

Hydrology was assessed by a visual observation of primary and secondary wetland hydrology indicators. Drainage patterns were the only primary indicators observed at the site during the delineation. Secondary hydrologic indicators observed were oxidized root channels in the upper 12 inches and water stained leaves. The hydrology profile descriptions were recorded on USACE routine wetland determination data forms and are included as Appendix B.

Area 1 and Area 2 exhibited no wetland hydrology indicators. Drainage patterns were observed in Area 3 because it is a ditch that water drains through. In Area 4, drainage patterns caused by runoff from the adjacent lawn on the property to the east were observed. After delineating all the areas of the site, Areas 5 and 6 were delineated separately because they appeared to be separate features during the initial assessment of the site, however after being delineated, it was evident that they were part of the same man-made ditch. Both areas 5 and 6 had drainage patterns and secondary wetland hydrology indicators.

4.3 SOILS

Soils were characterized by (1) digging eight soil pits with a shovel (Pit 1A, Pit 2A, Pit 3A, Pit 4A, Pit 5A, Pit 5B, Pit 6A, and Pit 6B) and (2) inspecting the soil profile for hydric soil indicators, in accordance with the USACE delineation manual (USACE 1987). According to the soil survey for this site, the soils are not hydric soils and are not typical wetland soils. Soil pit locations are indicated on Figure 2.

Soil color was described using the Munsell Soil Color Chart (Kollmorgen Corporation 1992). Other soil characteristics such as soil texture, organic content, consistency, moisture content, and

special soil characteristics such as mottling and gleyed conditions, were described using standard nomenclature. Mottled soil colors and oxidized root channels were observed in pits 5A, 6A, and 6B, indicating that hydric soils were present in those areas. The soil profile descriptions were recorded on USACE routine wetland determination data forms and are included as Appendix 2.

5.0 CONCLUSIONS

The conclusions presented in this report are based on the observations and professional opinion of Tetra Tech.

Upon an initial walk-through of the site, six potential wetland areas were identified. Upon further investigation, it was determined that two of the areas (Area 5 and Area 6) contained the three characteristics necessary to be considered wetlands, and four did not. The boundary of Area 5 was indicated with flagging and the soil pits were marked with a wooden stake and flagging. The second area, Area 6, was a man-made ditch feature, and was not indicated with flagging due to partial cover by thick blackberry bushes and because the edge of the ditch was easily identifiable, however the soil test pits in Area 6 were marked with a wooden stake and flagging. This information was used to produce a rough map of the boundaries of these areas on the subject site (Figure 2). After the delineation was performed a survey crew produced a map of Area 5 and Area 6, located on the property. The total coverage of these two areas was approximately 2,203 square feet. This map is included in this report as Addendum 1.

According to Part IV, Subsection 4 of the USACE wetland delineation manual, "A man-induced wetland is an area which has developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities." Both Areas 5 and 6 are considered to be man induced wetlands. Step 4 of the aforementioned section also states, "If hydrophytic vegetation is being maintained only because of man-induced wetland hydrology that would no longer exist if the activity (such as, irrigation) were to be terminated, the area should not be considered a wetland." According to this regulation, Areas 5 and 6 are not considered wetlands because; the water supply to these features is run-off that is culverted through a man-made pipe which drains to the man-made ditch (Areas 5 and 6) on the site. Therefore, these

areas should not be not evaluated by applicable agencies as wetlands. A summary of the characteristics of each Area is presented below in Table 3.

TABLE 3 – Test Pit Summary

Area and Pit ID	Hydrophytic Vegetation Indicators	Hydric Soil Indicators	Hydrology Indicators	Wetland vs. Upland
Area 1, 1A	No vegetation observed near test soil pit	None	None	Upland
Area 2, 2A	No vegetation observed near test soil pit	None	None	Upland
Area 3, 3A	No vegetation observed near test soil pit	None	Topography (drainage ditch)	Upland
Area 4, 4A	Less than 50% FAC, FACW, OBL	None	Topography (drainage area)	Upland
Area 5, 5A	20% FAC, FACW, OBL 65% is a known wetland plant in CA, however is not listed on the hydrophytic vegetation indicator list for CA	Reducing conditions, matrix from 0.5 to 4.0 inches - 10 YR 3/3, mottles 10 YR 4/6, from 4.0 to 13.0 inches – 10 YR 3/2, mottles 2.5YR 3/4	Drainage pattern in wetland (Primary Indicator) due to man-made ditch, oxidized root channels in upper 12 inches and water-stained leaves (Secondary Indicators)	Man-Induced Wetland
Area 5, 5B	No vegetation observed in the low area where the test soil pit was dug out	None	None	Upland
Area 6, 6A	60% FAC+, 40% is a known wetland plant in CA, however is not listed on the hydrophytic vegetation indicator list for CA	Reducing conditions, matrix from 1.0 to 9.0 inches - 10 YR 3/2, mottles 2.5YR 3/4 (shovel refusal was encountered below 9.0 inches due to thick root mass)	Drainage pattern in wetland (Primary Indicator) due to man-made ditch, oxidized root channels in upper 12 inches and water-stained leaves (Secondary Indicators)	Man-Induced Wetland
Area 6, 6B	55% FACW- or FAC+, 25% is a known	Reducing conditions, matrix from 1.5 to 12.0	Drainage pattern in wetland (Primary Indicator) due to	Man-Induced Wetland

	wetland plant in CA, however is not listed on the hydrophytic vegetation indicator list for CA	inches - 10 YR 3/2, mottles 2.5YR 3/4	man-made ditch, oxidized root channels in upper 12 inches and water-stained leaves (Secondary Indicators)	
--	--	---	---	--

Notes:

FAC – Facultative

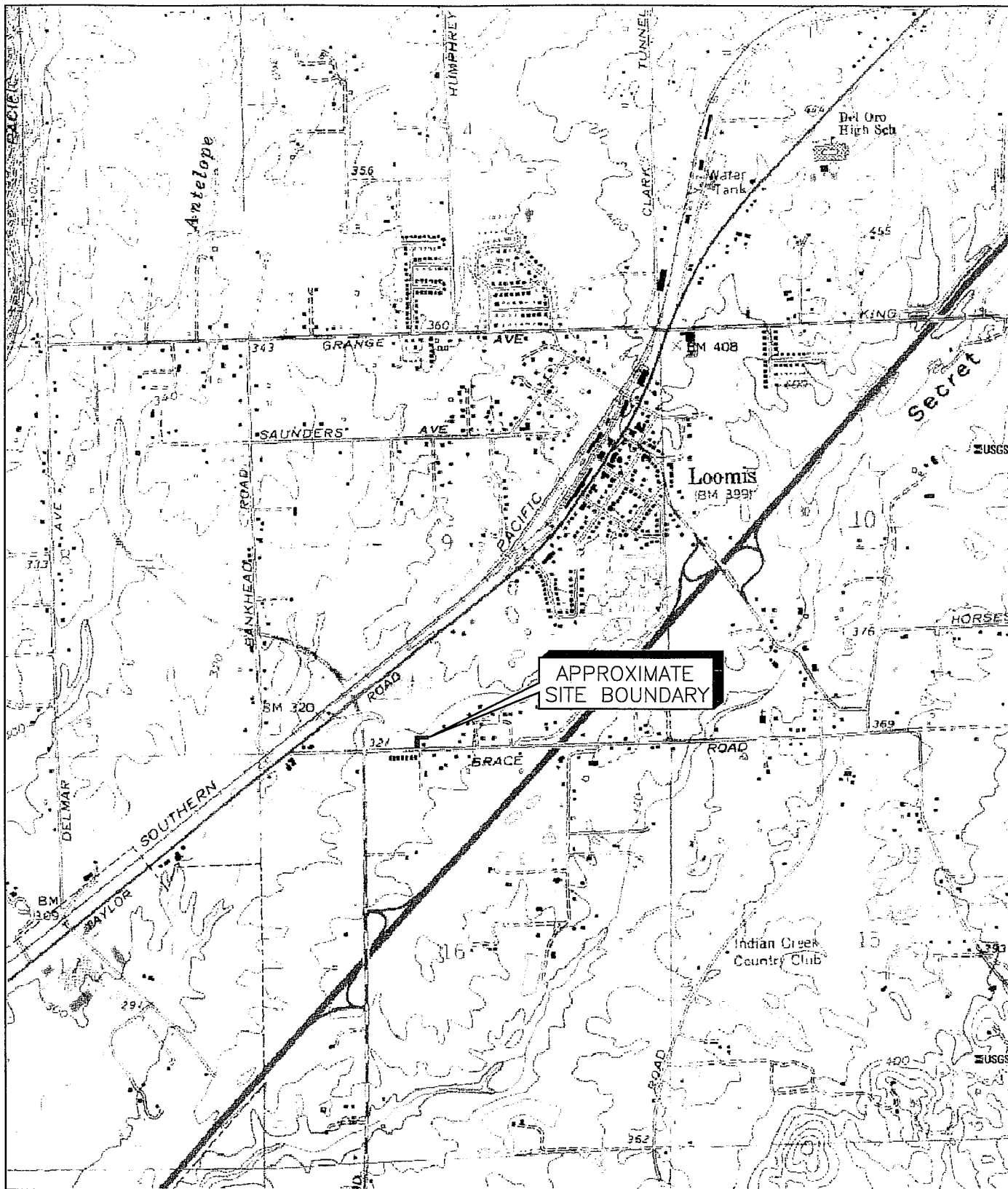
FACW – Facultative Wetland

OBL – Obligate Wetland

6.0 LITERATURE CITED

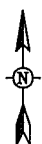
- Fielder, Peggy. 1996. *Common Wetland Plants of Central California*. US Army Corps of Engineers, Sacramento Office.
- Hickman, James C. ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley, California.
- United States Department of Agriculture, Soil Conservation Service (USDA SCS). 1980. Soil Survey of Placer County, California; United States Department of Agriculture, Soil Conservation Service.
- United States Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetland Delineation Manual.
- United States Fish and Wildlife Service (USFWS). 1988. 1988 National List of Vascular Plant Species that Occur in Wetlands.

FIGURES



LEGEND

--- Target Property Boundary



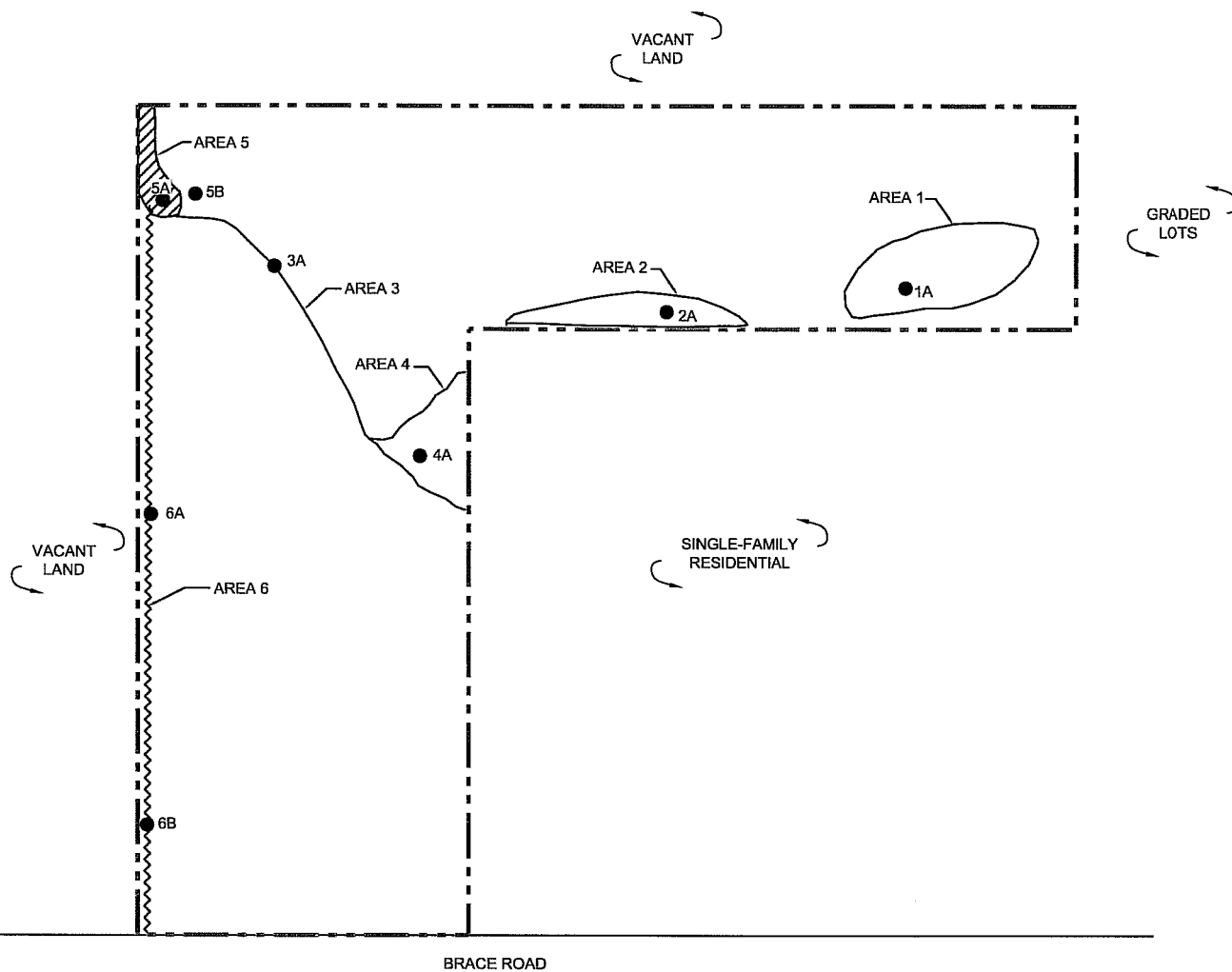
NOT TO SCALE

LOCATION MAP
KRIENKE PROPERTY
5397 BRACE ROAD
LOOMIS, CALIFORNIA



Tetra Tech EM Inc. Project P4030.01

FIGURE
1



LEGEND

- Target Property Boundary
- 6B Test Soil Pit
- ▨ Man-Induced Wetland Area



NOT TO SCALE

SITE MAP
KRIENKE PROPERTY
5397 BRACE ROAD
LOOMIS, CALIFORNIA



Tetra Tech EM Inc. Project P4030.01

FIGURE
2

APPENDIX A

Photograph Journal



Photograph 1

Orientation: Northeast

View of Area 1.



Photograph 2

Orientation: West

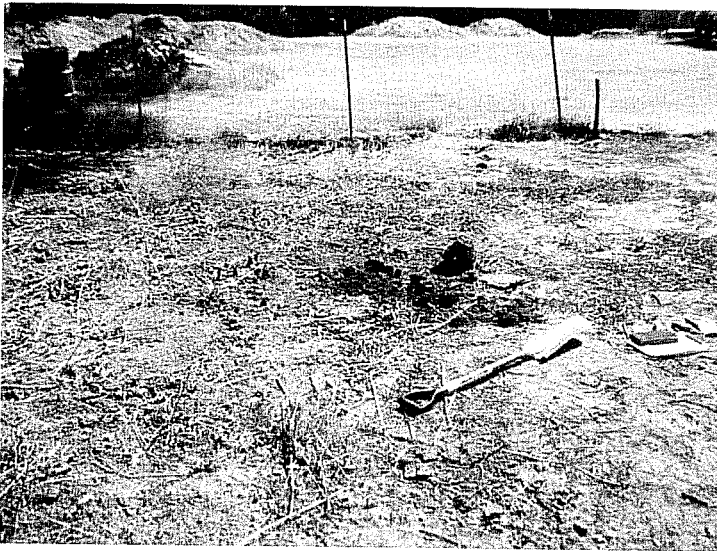
View of Area 2.



Photograph 3

Orientation: South

View of Area 3.



Photograph 4

Orientation: East

View of Area 4 and test soil pit 4A.



Photograph 5

Orientation: North

View of Area 5 after delineation.



Photograph 6

Orientation: North

View of Area 6 and test soil pit 6B.

APPENDIX B

Data Forms

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Krienke Wetland</u>	Date: <u>8.28.06</u>
Applicant/Owner: <u>Kai Krienke</u>	County: <u>PLACER</u>
Investigator: <u>Sarah Piper</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/>	Transect ID: _____
Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No <input type="radio"/> (If needed, explain on reverse.)	Plot ID: <u>1A</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Cottonwood</u>	<u>NA</u>		9. _____		
2. <u>Valley Oak</u>	<u>NA</u>		10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: Area located in oak forest habitat. Undergrowth has been disturbed - No vegetation was evident in low areas where water might pool up. Cottonwood + oak were observed in immediate vicinity.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: <u>none</u> Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>low area appears to have been man made during clearing activities earlier this year. No wetland hydrology indicators were observed. area is low lying + could support ponded water.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Andregg Coarse Sandy loam</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent Slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description: Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1/2	O	NA	organic matter	none	none
1/2-13	A	10 YR 3/2	none	none	sandy silt w/ gravels

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	--

Remarks: Soils are sandy silt w/ gravels. NO hydric soil indicators were observed

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>
--	---

Remarks: The area is urban-made low lying area within oak woodland habitat. This area is not a wetland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Kriemke Wetland</u> Applicant/Owner: <u>Kai Kriemke</u> Investigator: <u>Sarah Piper</u>	Date: <u>8.28.06</u> County: <u>PLACER</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>2A</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Valley Oak</u>	<u>NA</u>		9. _____		
2. _____	<u>NA</u>	<u>SL</u>	10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: no vegetation was observed in the low area of the test pit. oaks were observed in the immediate vicinity.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: <u>none</u> Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>no wetland hydrology indicators observed. Area is low lying + could support ponded water</u>	

SOILS

Map Unit Name (Series and Phase): <u>Andregg coarse sandy loam,</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description: Depth ¹ (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1/2	O	NA	NA	NA	organic matter, leaf litter
1/2-13	A	10YR 3/2	none	none	Sandy silt w/gravels

Hydric Soil Indicators: none

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	--

Remarks: Soils are sandy silt w/gravels. No hydric Soil Indicators were observed.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)
---	---

Remarks: This area is a man-made low lying area. Appears that the property adjacent south could drain to this area causing seasonal ponding. This area is not considered a wetland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Krienke Wetland</u> Applicant/Owner: <u>Kai Krienke</u> Investigator: <u>Sarah Piper</u>	Date: <u>8.28.06</u> County: <u>Placer</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>3A</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Valley oak</u>	<u>NA</u>		9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: No vegetation was observed in the ^{low} area. Oak trees were observed adjacent to the test pit.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: <u>None</u> Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>~1/2" of soil was saturated likely due to lawn watering activities.</u> (in.)	Remarks: <u>Area is a gravel lined maintained, man-made ditch.</u>

SOILS

Map Unit Name (Series and Phase): <u>Andregg coarse Sandy loam, 1</u>					Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent slopes</u>					Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Profile Description:						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	
0-1/4	na	na	na	na	pea gravel	
<hr/>						
1/4-1 1/2	A	10 YR 3/2	none	none	sandy silt w/ gravels	
<hr/>						
<hr/>						
<hr/>						
Hydric Soil Indicators: none						
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors </div> <div> <input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks) </div> </div>						
Remarks: <u>soils not hydric in test pit.</u>						

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)	
Hydric Soils Present?	Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	
Remarks: <u>Wet</u>		

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Kienke wetland</u>	Date: <u>8.28.06</u>
Applicant/Owner: <u>Kai Kienke</u>	County: <u>PLACER</u>
Investigator: <u>Sarah Piper</u>	State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No <input type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>4A</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sedge</u>	<u>10%</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Chiron</u>	<u>2% SP</u>	_____	10. _____	_____	_____
3. <u>Water Plantain</u>	<u>2%</u>	<u>OBL+</u>	11. _____	_____	_____
4. <u>Base ground</u>	<u>88%</u>	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: Vegetation not abundant, sparse sedge near test pit area.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: <u>None</u> Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>Area is a low area where water could pool. The property to the east appears to drain to the area of the test pit.</u>

SOILS

Map Unit Name (Series and Phase): <u>Andregg Coarse Sandy loam,</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent Slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description:		Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
Depth (inches)	Horizon				
0-1/2	O	na	na	na	sparse leaf + stick detritus.
1/2-16	A	10 YR 3/2	none	none	Sandy silt w/ gravelles.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	--

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)
---	---

Remarks:

Approved by HQUSACE 3/92

Potential
Area #5

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Krienke Wetland</u> Applicant/Owner: <u>Kai Krienke</u> Investigator: <u>Sarah Piper</u>	Date: <u>8-28-06</u> County: <u>PLACER</u> State: <u>CA</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%;"> <tr> <td>Yes <input type="radio"/></td> <td>No <input checked="" type="radio"/></td> </tr> <tr> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> <tr> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> </table> Community ID: <u> </u> Transect ID: <u> </u> Plot ID: <u>5A</u>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input type="radio"/>						

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sedge</u>	<u>65%</u>	<u>FACW</u>	9. <u> </u>	<u> </u>	<u> </u>
2. <u>Blackberry</u>	<u>5%</u>	<u>FACT</u>	10. <u> </u>	<u> </u>	<u> </u>
3. <u>Water Plantain</u>	<u>65%</u>	<u>OBL</u>	11. <u> </u>	<u> </u>	<u> </u>
4. <u>Sedge</u>	<u>15%</u>	<u>FACW, OBL</u>	12. <u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	13. <u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	14. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	15. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>

Percent of Dominant Species that are OBL, FACW or FAC. (excluding FAC-). 85%

Remarks:

HYDROLOGY

<p><u> </u> Recorded Data (Describe in Remarks):</p> <p><u> </u> Stream, Lake, or Tide Gauge</p> <p><input checked="" type="checkbox"/> Aerial Photographs</p> <p><u> </u> Other</p> <p><u> </u> No Recorded Data Available</p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u> </u> (in.)</p> <p>Depth to Free Water in Pit: <u> </u> (in.)</p> <p>Depth to Saturated Soil: <u> </u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><u> </u> Inundated</p> <p><u> </u> Saturated in Upper 12 Inches</p> <p><u> </u> Water Marks</p> <p><u> </u> Drift Lines</p> <p><u> </u> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p><input checked="" type="checkbox"/> Water-Stained Leaves</p> <p><u> </u> Local Soil Survey Data</p> <p><u> </u> FAC-Neutral Test</p> <p><u> </u> Other (Explain in Remarks)</p>
<p>Remarks: <u>area is a low lying area where water drains from the ditch that runs along the west property boundary and ditch on property.</u></p>	

SOILS

Map Unit Name (Series and Phase): <u>Andreeg coarse Sandy loam</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1/2	O	na	na	na	leaf litter
1/2-4	A	10YR 3/3	10YR 4/6	sparse, not much contrast	Silt w/ sparse gravels
4-13	A	10YR 3/2	2.5YR 3/4	abundant	Silty sand w/ trace gravels

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks: oxidized root channels, abundant mottles

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
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Remarks: Part of man-made ditch, not a natural wetland feature

Approved by HQUSACE 3/92

Potential area
#5

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Krienke Wetland</u> Applicant/Owner: <u>Kai Krienke</u> Investigator: <u>Sarah Piper</u>	Date: <u>8.28.06</u> County: <u>Placer</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: <u> </u> Transect ID: <u> </u> Plot ID: <u>5B</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Blackberry</u>	<u>NA</u>	<u>FAC +</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: NO vegetation was observed in the low area where test pit was dug. Blackberry plants observed along the edge of the small ditch.

HYDROLOGY

<p><input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs _____ Other _____ No Recorded Data Available</p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: _____ (in.)</p> <p>Depth to Free Water in Pit: _____ (in.)</p> <p>Depth to Saturated Soil: _____ (in.)</p>	<p>Wetland Hydrology Indicators: <u>none</u></p> <p>Primary Indicators:</p> <p>_____ Inundated</p> <p>_____ Saturated in Upper 12 Inches</p> <p>_____ Water Marks</p> <p>_____ Drift Lines</p> <p>_____ Sediment Deposits</p> <p>_____ Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p>_____ Oxidized Root Channels in Upper 12 Inches</p> <p>_____ Water-Stained Leaves</p> <p>_____ Local Soil Survey Data</p> <p>_____ FAC-Neutral Test</p> <p>_____ Other (Explain in Remarks)</p>
<p>Remarks: <u>topography of ditch would not support pooled water as it is too steep.</u></p>	

SOILS

Map Unit Name (Series and Phase): <u>Andregg coarse sandy loam</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description:		Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
Depth (inches)	Horizon				
0-1	O	0.5 NA	NA	NA	leaf litter
1-13	A	10YR 3/3	none	none	sandy silt w/ gravelles

Hydric Soil Indicators: none

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions: <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks: hydric soil not observed at this pit location

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> (Circle) Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)
Remarks:	

Approved by HQUSACE 3/92

Potential Area
6

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Krienke Wetland</u> Applicant/Owner: <u>Kai Krienke</u> Investigator: <u>Sanah Piper</u>	Date: <u>8.28.06</u> County: <u>Placer</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No <input type="radio"/> (If needed, explain on reverse.)	Community ID: <u>—</u> Transect ID: <u>—</u> Plot ID: <u>6A</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sedge</u>	<u>40%</u>	<u>FACSP</u>	9. _____	_____	_____
2. <u>Blackberry</u>	<u>60%</u>	<u>FAC+</u>	10. _____	_____	_____
3. <u>Water Plantain</u>	<u>40%</u>	<u>OBL*</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC 100%
(excluding FAC-).

Remarks:

HYDROLOGY

<p>___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs ___ Other ___ No Recorded Data Available</p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p>___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)</p>
Remarks: <u>Ditch parallels East property Boundary</u>	

SOILS

Map Unit Name (Series and Phase): <u>Andreaga coarse sandy lam</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2 to 9 percent slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	D	NA	NA	NA	leaf litter
1-9	A	10 YR 3/2	2.5 YR 3/4	abundant	silty sand w/ trace gravels
					refused too many roots

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks: oxidized root channels, abundant mottles

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
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Remarks: Man-made ditch has wetland features, not a natural wetland.

Approved by HQUSACE 3/92

Potential
Area 6

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Kai Kruenke Wetland</u> Applicant/Owner: <u>Kai Kruenke</u> Investigator: <u>Sarah J. J. J.</u>	Date: <u>8-28-06</u> County: <u>Placer</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>6 B</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Curly Dock</u>	<u>30%</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Sedum</u>	<u>25%</u>	<u>8</u>	10. _____	_____	_____
3. <u>Blackberry</u>	<u>25%</u>	<u>FAC+</u>	11. _____	_____	_____
4. <u>Water Plantain</u>	<u>25%</u>	<u>OBL*</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 80%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: _____	

SOILS

Map Unit Name (Series and Phase): <u>Andregg coarse sandy loam</u>		Drainage Class: <u>C</u>	
Taxonomy (Subgroup): <u>2+9 percent slopes</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1 1/2	O	NA	NA	NA	leaf litter
1 1/2	12	10YR 3/2	2.5YR 3/4	~30%, large contrast	Sandy, trace silt + gravels

Hydric Soil Indicators:	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks: oxidized root channels + abundant mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
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Remarks: Man-made ditch has wetland features, not a natural feature.

Approved by HQUSACE 3/92